PERFORMANCE ASSESSMENT OF DATA CLASSIFIERS

FIELD OF THE INVENTION

The present invention relates to methods and apparatus for assessing the performance of data classifiers, such as neural networks. One specific field of application is that of training and assessing the performance of data classifiers to be used for fraud detection including, in particular, telecommunications fraud.

BACKGROUND TO THE INVENTION

Data classifiers such as neural networks typically operate by generating an element of output data in response to an element of input data. Such a data classifier may be constructed or trained using a training set of input and output data elements in such a way that not only is the data classifier able to reproduce, as accurately as possible, each element of output training data in response to each corresponding element of input training data, but it is also able to generate suitable elements of output data in response to new input data elements in a plausible and useful manner. Neural networks achieve this behaviour through the training of a plurality of interlinked neural nodes, usually constructed in software, but other schemes are known.

Data classifiers such as neural networks are commonly used in the detection of patterns or anomalies within large data sets. A particular application is that of detecting fraudulent activity on telecommunications networks, such as illicit emulation of a legitimate mobile telephone through